

# Chapter 8. SEARCH AND RESCUE (SAR) PROCEDURES FOR VFR AIRCRAFT

## Section 1. GENERAL

### 8-1-1. RESPONSIBILITY FOR SAR ACTION

a. The departure station is responsible for SAR action until receipt of the destination station's acknowledgment for the flight notification message. This responsibility is then transferred to the destination station.

b. The National SAR Plan assigns search and rescue responsibilities as follows:

1. To the military agencies for conducting physical search and rescue operations.

2. To the FAA for:

- (a) Providing emergency service to aircraft in distress.

- (b) Assuring that SAR procedures will be initiated if an aircraft becomes overdue or unreported. This is accomplished through the ATC system for IFR aircraft and the flight plan program and/or reports of overdue aircraft received at air traffic facilities for VFR aircraft.

- (c) Attempting to locate overdue or unreported aircraft by INREQ and ALNOT communications search.

- (d) Cooperating in the physical search by making all possible facilities available for use of the searching agencies.

- c. Flight service stations serve as the central point for collecting and disseminating information on overdue or missing aircraft which are not on an IFR flight plan.

- d. ARTCC's serve as the central points for collecting information, coordinating with SAR, and conducting a communications search by distributing any necessary ALNOT's concerning:

1. Overdue or missing IFR aircraft.

2. Aircraft in an emergency situation occurring in their respective areas.

3. Aircraft on a combined VFR/IFR or an airfiled IFR flight plan, and 30 minutes have passed since the pilot requested IFR clearance, and neither communications nor radar contact can be established.

4. Overdue or missing aircraft which have been authorized to operate in accordance with a SVFR clearance.

- e. The ARTCC serves as the contact point for collecting information and coordinating with the RCC on all ELT signals.

### 8-1-2. OVERDUE AIRCRAFT ON FLIGHT PLAN

Consider an aircraft on a VFR or DVFR flight plan overdue when it fails to arrive 30 minutes after its ETA and communications or location cannot be established.

### 8-1-3. OVERDUE AIRCRAFT NOT ON FLIGHT PLAN

Consider an aircraft not on a flight plan as overdue at the actual time a reliable source reports it to be at least 1 hour late at destination. Based on this overdue time, apply the same procedures and action times as for aircraft on a flight plan. When such a report is received, verify (if possible) that the aircraft actually departed and that the request is for a missing aircraft rather than a person. Refer missing person reports to the appropriate authorities.

#### REFERENCE-

*Initial Action/QALQ, Para 8-2-1; INREQ, Para 8-3-1; ALNOT, Para 8-4-1.*

## Section 2. OVERDUE AIRCRAFT ACTION

### 8-2-1. INITIAL ACTION/QALQ

a. As soon as a VFR/DVFR aircraft (military or civil) becomes overdue, the destination station (including intermediate destination tie-in station for military aircraft) shall attempt to locate the aircraft by checking the destination airport and all adjacent airports that could accommodate the aircraft. Also, check appropriate ATCT facilities and ARTCC sectors through the area manager. If this communications search does not locate the aircraft, transmit a QALQ to the departure location tie-in AFSS/FSS and when appropriate the DUAT vendor or AFSS/FSS where the flight plan information is on file.

#### EXAMPLE-

AIS  
FF KICTYFYX  
DTG KHONYFYX  
QALQ N12345

#### MIFC

ORIGIN:ICT PRECEDENCE:FF TIME: ACK:N  
ADDR:MKL  
TEXT:QALQ N12345

#### NOTE-

*If it is determined by the flight service specialist that the local field search cannot be completed before the INREQ transmission time, the QALQ shall be transmitted in time to receive the information for the INREQ message. The local field search shall continue without reference to time until completed.*

b. Use of long distance telephone in carrying out SAR responsibilities is authorized when appropriate.

c. In the case of a U.S. registered aircraft, or any aircraft known to be piloted by or transporting U.S. citizens and en route within a foreign country or between two foreign countries, if the overdue report is received either from someone directly concerned or from aviation authorities of a foreign country, notify the Washington Communications Control Center immediately via Service B message addressed to RWA.

d. Alaska. In addition to subparas 8-2-1a and c, address QALQ, INREQ, or ALNOT messages and replies to PANCYAYX and PAEDYCYX.

#### NOTE-

*RCC's other than Elmendorf AFB (PAEDYCYX) are not on Service B and must be notified by telephone.*

e. Upon receipt of a QALQ message from the destination station concerning a flight for which a proposed flight plan was transmitted, the station which transmitted the proposal shall immediately transmit a message to the destination station containing all information not previously sent. After a local airport check, no further search action is required of the station which transmitted the proposal and no further messages will be received by this facility unless the search area extends into its flight plan area.

f. M1FC. Properly formatted QALQ's, INREQ's, ALNOT's, and INCERFA's are automatically placed on the Search and Rescue (SAR) list. Messages are manually deleted from the SAR list using the keyword DM.

### 8-2-2. ACTION BY DEPARTURE STATION ON RECEIPT OF QALQ

Upon receipt of the QALQ inquiry, the departure station shall check locally for any information about the aircraft, and take the following action:

a. If the aircraft is located, notify the destination station. The destination station will close the file on the aircraft.

#### EXAMPLE-

AIS  
FF KCOUYFYX  
DTG KSBAYFYX  
QALQ N12345 C1255

#### MIFC

ORIGIN:COU PRECEDENCE:FF TIME: ACK:N  
ADDR:MKL  
TEXT:QALQ N12345 C1255

b. If unable to obtain additional information transmit a message to the destination station containing all information not previously sent. Include any verbal or written remarks made by the pilot which may be pertinent to the search. The data transmitted may be obtained from the flight plan information or any other pertinent information located in the DD file. This information can be transmitted using the SV 1, TB, and RV 1 format. Before transmitting, the message will require the correct header to be added to ensure the QALQ reply message is placed on the SAR list.

**EXAMPLE-**

AIS

FF KPAHYFYX

DTG KLITYFYX

QALQ N12345 C150/X 110 PBF D1235 85

LIT PAH 0130/0400 CLARENCE NEWBERN

601 E 12TH MKC 555-123-4567 2 POB

WHITE/RED

MIFC

ORIGIN:RDU PRECEDENCE:FF TIME: ACK:N

ADDR:PIE

TEXT:QALQ N12345 FR:V AT:C182/T TS:120

DD:EQY TM:D291445 AE:035 RT:EQY.CAE

..ALD..CRG..DAB..ORL..ISM AD:ISM TE:

0400 RM:\$REFUEL CRG FB:0430 AA: PD:

MIKE T. BROWN DQY 704-555-1212 NB:2

CR:W/R/B OP: CP:KPIEYFYX TA:291845

A/C ID TIME DEP DESTN

INFLT BRFG: N12345 14:50 EQY ISM

RMKS:AVFP

A/C ID TIME DEP DESTN

INFLT BRFG: N12345 14:00 EQY ISM

RMKS:VNR

**8-2-3. CANCELLATION OF THE QALQ**

If the aircraft is located by the destination station after the QALQ is sent, transmit a cancellation message addressed to all recipients of the QALQ.

**EXAMPLE-**

AIS

FF KSTLYFYX

DTG KHONYFYX

QALQ N12345 CNLD

MIFC

ORIGIN:JBR PRECEDENCE:FF TIME: ACK:N

ADDR:FOD

TEXT:QALQ N12345 CNLD

## Section 3. INFORMATION REQUESTS (INREQ'S)

### 8-3-1. INREQ

If the reply to the QALQ is negative or the aircraft has not been located within 30 minutes after it becomes overdue:

a. The destination station shall transmit a numbered INREQ message to the departure station, flight watch control stations with communication outlets along the route, and other AFSS/FSS's and ARTCC's along the route. In addition, address RCC and DUAT vendors using the collective address KSARYCYX.

1. If the departure airport, route of flight, destination airport or alternate airports are within 50 miles of the Great Lakes, include Cleveland AFSS as an addressee. They will relay to Cleveland RCC.

2. Hawaiian stations shall give preliminary notification to Honolulu SARCC as follows:

(a) Hilo by long distance telephone.

(b) Honolulu AFSS shall use local telephone.

(c) Secondary means for Hilo shall be Service B to Honolulu AFSS and then by telephone between Honolulu AFSS and the SARCC.

b. Include all information in the INREQ message that will assist in search activities.

#### NOTE-

*The National Search and Rescue Plan is outlined in the AIM, Para 6-2-7.*

#### EXAMPLE-

##### 1. AIS

*DD (appropriate eight-character identifiers and KSARYCYX)*

*DTG KLITYFYX*

*LIT001 (appropriate three-character identifiers)*

*INREQ N12345 BE36/R 150 PAH D1235*

*85 PAH LIT FEXHA 1635 DALE CARNINE*

*601 E. 12TH ST. MKC 555-765-4321 2 POB*

*BROWN/WHITE (any other information available)*

##### MIFC

*ORIGIN:RDU PRECEDENCE:DD TIME:ACK:Y*

*ADDR:(Appropriate three-character identifiers and KSARYCYX)*

*TEXT:INREQ N12345 FR:V AT:C152/T TS:100*

*DD:EQY TM:D291445 AE:035 RT:EQY.CAE..  
ALD..CRG..DAB..ORL..ISM AD:ISM TE:0400  
RM:\$REFUEL CRG FB:0430 AA: PD:DAVE  
JOHNSON DQY 704-555-1212 NB:1 CR:W/R/B  
OP: CP:KPIEFYX TA:291845*

*A/C ID TIME DEP DESTN*

*INFLT BRFG: N12345 14:50 EQY ISM*

*RMKS:AVFP*

*A/C ID TIME DEP DESTN*

*INFLT BRFG: N12345 14:00 EQY ISM*

*RMKS:VNR*

##### 2. AIS

*DD (appropriate eight-character identifiers and KSARYCYX)*

*DTG KLITYFYX*

*LIT001 (appropriate three-character identifiers)*

*INREQ N12345 BE36/R 150 PAH LIT*

*DALE CARNINE 601 E. 12TH ST MKC*

*WIFE REPORTS ETA 1230*

##### MIFC

*ORIGIN:OLU PRECEDENCE:DD TIME:ACK:Y*

*ADDR:(appropriate three-character identifiers and KSARYCYX)*

*TEXT:INREQ N12345 BE36/R GRI LBF*

*DALE CARNINE 601 E. 12TH ST MKC*

*WIFE REPORTS ETA 1230*

c. RCC does not have transmit capability. Acknowledgement is not required for messages to RCC.

### 8-3-2. ACTION UPON RECEIPT OF INREQ

Stations receiving an INREQ shall take the following action:

a. Seek information about the aircraft by checking facility records and all flight plan area airports along the proposed route of flight that could accommodate the aircraft. Notify appropriate ATCT facilities. Reply to the INREQ with a numbered message within 1 hour. If unable to complete the search within 1 hour, forward a status report followed by a final report when the search is complete. If the reply contains pertinent information such as aircraft location or position report, transmit to the destination station.

**EXAMPLE-**

AIS  
 DD KLANYFYX  
 DTG KHONYFYX  
 HON001 LAN  
 INREQ N1234A NO SVCS PROVIDED. FPA  
 SRCH INCOMP

AIS  
 DD KLANYFYX  
 DTG KHONYFYX  
 HON002 KLANYFYX  
 INREQ N1234A NEG INFO

**MIFC**

ORIGIN:LAN PRECEDENCE:DD TIME: ACK:Y  
 ADDR:HON  
 TEXT:INREQ N1234A NO SVCS PROVIDED.  
 FPA SRCH INCOMP  
 ORIGIN:LAN PRECEDENCE:DD TIME: ACK:Y  
 ADDR:HON  
 TEXT:INREQ N1234A NEG INFO

**NOTE-**

Upon receipt of INREQ's and ALNOT's, ATCT's and ARTCC's are required to check facility records, report findings to AFSS/FSS that alerted them within 1 hour, and retain in an active status until canceled.

**REFERENCE-**

FAAO 7110.65, Para 10-3-4, ALNOT.

b. The destination station shall retransmit the information, as necessary, to all original addressees.

c. Cleveland AFSS. When addressed, shall notify Cleveland U.S. Coast Guard RCC.

d. Hawaiian stations, notify Honolulu SARCC by telephone.

e. Facilities served by the expanded 800 system that have any portion of their incoming calls and/or Service B diverted to another facility shall notify that facility of the INREQ. The facility receiving diverted calls or Service B traffic shall check their records and advise of any information or contact with the aircraft.

**8-3-3. CANCELLATION OF INREQ**

The INREQ originator shall transmit a numbered cancellation message containing the location of the aircraft to all INREQ addressees when the aircraft is located. Notify associated ATCT facilities.

**EXAMPLE-**

AIS  
 DD (appropriate eight-character  
 identifiers including KSARYCYX)  
 DTG KPAHYFYX  
 PAH001 (appropriate three-character identifiers)  
 INREQ N1234A CNLD LCTD BWG

**MIFC**

ORIGIN:FOD PRECEDENCE:DD TIME: ACK:Y  
 ADDR:(appropriate three-character  
 identifiers and KSARYCYX)TEXT:INREQ N1234A CNLD  
 LCTD DSM

## Section 4. ALERT NOTICES (ALNOT'S)

### 8-4-1. ALNOT

If the replies to the INREQ are negative, or if the aircraft is not located within 1 hour after transmission of the INREQ, whichever occurs first, the destination station shall transmit an ALNOT.

a. Address ALNOT messages to your Regional Operations Center and those facilities within the search area. In addition, address the DUAT vendors and RCC using the collective address KSARYCYX. The search area is normally that area extending 50 miles on either side of the proposed route of flight from the last reported position to the destination. The search area may be expanded to the maximum range of the aircraft at the request of the RCC or by the destination station. If the departure airport, route of flight, destination airport, or alternate airports are within 50 miles of the Great Lakes, include Cleveland AFSS as an addressee. They will relay to the Cleveland RCC.

b. Alaska. Address to PANCYGYX, PANCYAYX, and KSARYCYX. (Only AFSS's/FSS's in the ALNOT search area are required to acknowledge.)

c. Include all information in the ALNOT message that will assist in search activities (same as INREQ plus any additional information received).

#### EXAMPLE-

AIS

SS (appropriate ARTCC circuit codes as identified in subpara 10-1-4c, other addresses as identified in subpara 8-4-1a and KSARYCYX)

DTG KEWNYFYX

ALNOT N12345 BE36/R 150 RDU D1840 75

RDU EWN FEXHA 2140

CLARENCE E. NEWBERN

601 E 12TH MKC 555-123-4567 2 POB

BROWN/TAN (any other information available)

MIFC

ORIGIN:RDU PRECEDENCE:SS TIME: ACK:N

ADDR:(appropriate ARTCC circuit code as identified in subpara 10-1-4c, other addresses as identified in subpara 8-4-1a and KSARYCYX)

TEXT:ALNOT N12345 FR:V AT:C172/T TS:100

DD:EQY TM:D291445 AE:035 RT:EQY.CAE..

ALD..CRG..DAB..ORL..ISM AD:ISM TE:0400

RM:\$REFUEL CRG FB:0430 AA: PD:JOHN M.

BROWN DQY 704-555-1212 NB:3 CR:W/R/B

OP: CP:KPIEFYX TA:291845

A/C ID TIME DEP DESTN

INFLT BRFG: N12345 14:50 EQY ISM

RMKS:AVFP

A/C ID TIME DEP DESTN

INFLT BRFG: N12345 14:00 EQY ISM

RMKS:VNR

d. Ten minutes after issuance of the ALNOT, call Langley AFB to ensure delivery of the ALNOT and to answer any inquiries. (Alaska: Call Fort Richardson, 11th RCC at (907) 428-7230, 800-420-7230, or DSN 317-384-6726.)

#### NOTE-

RCC (Langley AFB) phone numbers are:

(Direct) 804-764-8112 or 800-851-3051

(Langley AFB operator) 804-764-1110 and ask for extension 48112 or Defense Switching Network 574-8112.

### 8-4-2. ACTION UPON RECEIPT OF ALNOT

Upon receipt of an ALNOT, each station whose flight plan area extends into the ALNOT search area shall:

a. Immediately conduct a communications search of those flight plan area airports which fall within the ALNOT search area that could accommodate the aircraft and which were not checked during the INREQ search. Notify the appropriate ATCT facilities. Request the appropriate law enforcement agency to check airports which cannot be contacted otherwise. Stations that have any portion of their incoming calls and/or Service B diverted to another facility shall notify that facility of the ALNOT. The facility receiving diverted traffic shall check their records and advise of any information or contact with the aircraft.

b. Within 1 hour after receipt of the ALNOT, notify the originator of the results or status of the communications search. If the reply contains pertinent information, such as aircraft location or position report, transmit to the destination station. The destination station shall retransmit the information, as necessary, to all original addresses.

#### EXAMPLE-

AIS

SS KFODYFYX

DTG KANBYFYX

ALNOT N12345 FLD CK INCOMP

AIS

SS KFODYFYX

DTG KANBYFYX

ALNOT N12345 ACFT LCTD OG DHN

MIFC

ORIGIN:GFK PRECEDENCE:SS TIME: ACK:N

ADDR:COU

TEXT:ALNOT N12345 FLD CK  
 COMPL NEG INFO  
 ORIGIN:GFK PRECEDENCE:SS TIME:ACK:N  
 ADDR:COU  
 TEXT:ALNOT N12345 ACFT LCTD OG DIK

c. Stations within the ALNOT search area shall record the ALNOT. (See Para 2-2-2j Phraseology.)

d. Request search assistance from aircraft traversing the search area.

#### 8-4-3. REPORTING ALNOT STATUS TO RCC

If the extended communications search fails to locate the aircraft or if 1 hour has elapsed since ALNOT transmission, whichever occurs first, the destination station shall call the RCC and, if appropriate, the Cleveland AFSS, which notifies the Cleveland RCC. Provide all pertinent available information about the overdue aircraft not already provided in the ALNOT to include:

- a. Agency and the person calling.
- b. Details of the flight plan. If the aircraft was not on a flight plan, include all the facts about the source of the report.
- c. Time the last radio transmission was received, by whom, and the frequency used.
- d. Last position report.
- e. Whether an ELT signal was heard or reported along the route of flight.
- f. Action taken and the proposed action by the reporting station.

g. Upon request, furnish positions of other aircraft known to be along or near the route of flight of the missing aircraft.

#### 8-4-4. CANCELLATION OF ALNOT

The ALNOT remains current until the aircraft is located or the search is suspended by the RCC. The ALNOT originator shall then transmit a cancellation message with the location of the aircraft, if appropriate, addressed to all recipients of the ALNOT. Each facility shall notify all previously alerted facilities and agencies of the cancellation.

##### EXAMPLE-

AIS

SS (appropriate ARTCC circuit codes  
 as identified in subpara 10-1-4c, other  
 addresses as identified in  
 subpara 8-4-1a and KSARYCYX)  
 DTG KEWNYFYX  
 ALNOT N12345 CNLD ACFT LCTD JAX

AIS

SS (appropriate ARTCC circuit codes  
 as identified in para 10-1-4c, other  
 addresses as identified in  
 subpara 8-4-1a and KSARYCYX)  
 DTG KEWNYFYX  
 ALNOT N1513B CNLD SEARCH SUSPENDED

MIFC

ORIGIN:OLU PRECEDENCE:SS TIME:ACK:N  
 ADDR:(appropriate ARTCC circuit  
 codes as identified in subpara 10-1-4c,  
 other addressees as identified in  
 subpara 8-4-1a and KSARYCYX)  
 TEXT:ALNOT N1513B CNLD ACFT LCTD MCK

## Section 5. OTHER SAR ACTIONS

### 8-5-1. CONTACT WITH AIRCRAFT CROSSING HAZARDOUS AREA

When Lake, Island, Mountain, or Swamp Reporting Service programs have been established and a pilot requests the service, establish radio contact every 10 minutes (or at designated position checkpoints) with the aircraft while it is crossing the hazardous area. If contact with the aircraft is lost for more than 15 minutes, alert Search and Rescue.

**NOTE-**

*Hazardous Area Reporting Service and chart depictions are published in the AIM, Para 4-1-20.*

### 8-5-2. CANADIAN TRANSBORDER

a. Assume responsibility for initiating SAR action on transborder aircraft upon acknowledgment for the inbound flight notification message.

b. When SAR action is initiated, the destination and departure facilities are responsible for all communications search actions within their respective countries and for alerting their respective RCC.

c. Canadian communications search procedures and action times are similar to U.S. procedures. They will address all SAR messages to the U.S. departure

AFSS/FSS, which is then responsible for initiating SAR action for the U.S. portion of the route of flight.

d. For inbound from Canada, apply standard U.S. SAR procedures contained in this chapter for the U.S. portion of the route. Include the Canadian departure facility as an addressee on all SAR messages since that facility is responsible for initiating SAR action for the Canadian portion of the route of flight.

e. Upon receipt of a Canadian QALQ, the departure AFSS/FSS shall take the following actions:

1. Check locally for any information about the aircraft.

2. If unable to obtain additional information, or within 15 minutes after receipt of the QALQ, transmit a message to the destination facility containing all flight plan information not previously sent.

f. Upon receipt of a Canadian INREQ, the departure AFSS/FSS shall transmit an INREQ for the U.S. portion of the route of flight and reply to Canada within 1 hour in accordance with standard INREQ procedures.

g. Upon receipt of a Canadian ALNOT, the departure AFSS/FSS shall transmit an ALNOT for the U.S. portion of the route and reply to Canada within 1 hour in accordance with standard ALNOT procedures.